OCTOBER 25, 1949
583d BROADCAST

Town Meeting

BULLETIN OF AMERICA'S TOWN MEETING OF THE AIR

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THE TOWN HALL

Pat. Off.

What Should the Free World Do About the Atomic Bomb?

Moderator, **GEORGE V. DENNY, Jr.**

Speakers

LOUIS N. RIDENOUR — **HENRY M. JACKSON**

WILLIAM L. LAURENCE — **WILLIAM BRADFORD HUIE**

(See also page 13)

COMING

November 1, 1949

Are We Depending Too Much on Government for General Welfare?

November 8, 1949

Should the Communist Party Be Outlawed Now?

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Town Meeting

BULLETIN OF AMERICA'S TOWN MEETING OF THE AIR

GEORGE V. DENNY, JR., MODERATOR

THE TOWN HALL

TOBER 25, 1949 VOL. 15, No. 26

What Should the Free World Do About the Atomic Bomb?

nnouncer:

Tonight, after an absence of four months, America's Town eeting returns to its home in Town Hall in New York City. wn Hall, as many of you know, is a beautiful building on West Street, just off Times Square. It houses the many educational cultural activities of the Town Hall, Inc., established in 1894 the League for Political Education.

Town Hall's internationally famous lecture program opens its lh season next week with a lecture by Mr. Denny, who will of his experiences and observations while on tour with the und-the-World Town Meeting. Its program of short courses ring late afternoons and evenings is in full swing as is the acert season which extends from mid-September to the end of ril.

This Town Hall is a typically American institution, established 1921 as a modern adaption of the old New England Town Halls ich not only served as meeting places but as religious, educa- nal, and cultural centers as well. So we welcome you tonight this world famous institution for another lively and important wn Meeting. Now, to preside over our discussion, here is your derator, the President of Town Hall, New York, and founder America's Town Meeting of the Air, Mr. George V. Denny, Jr. Denny. (*Applause*)

derator Denny:

Good evening neighbors, and a very special aloha to our friends Hawaii who are celebrating Aloha Week in their beautiful radise we know as the Territory of Hawaii.

When we think of the twelve world capitals we've just visit on our trip around the world and the possibility of modern wa fare—the atom bomb is only a symbol of modern warfare—v wonder what madness has seized mankind that would make hi consider the possibility of trying to settle his disputes on th utterly fantastic scale.

It seems almost incredible that so-called civilized governmen should even contemplate the wholesale destruction of civili populations for any purpose whatsoever.

We are holding this Town Meeting tonight in the hope th the collective thinking of the free peoples of the world—you America, you in Britain, you in India, you in China, that free pa of China—may find a solution to this greatest problem we've ev faced.

We've invited to counsel with us four outstanding authoriti who approach the problem from four different points of vie Mr. Huie, as a naval officer in the Pacific, lecturer, author numerous books and articles on military affairs, we'll welcor your counsel on this subject tonight.

Dr. Ridenour, you are one of that select band of men who pro the secrets of the magic field of science that gave us the aton bomb. What do you think we should do with it?

Mr. Laurence, you saw the fire of that first atomic bomb in Ne Mexico on that fateful morning in the summer of 1945. You sa at Bikini, the tests of the power of this dreaded fire under wat What do you think, Bill Laurence, the free world should do abc the atomic bomb?

Congressman Jackson, yours is the greatest responsibility of t four. As a member of the Joint Committee on Atomic Ener what do you think the free world should do about the aton bomb?

Yesterday, governments and peoples who placed their fa in the United Nations reaffirmed that faith on its fourth birthd in the dedication of its permanent home here in New York Ci Will the statesmen of the world be able to justify that faith must all of us continue to live in fear and uncertainty until t gigantic struggle between our two worlds is resolved?

Well, it's been a long time since we've heard from Willi Bradford Huie on this program, but whenever the question national defense comes up, particularly having to do with power, Mr. Huie moves into the foreground as an outstand student of modern warfare, particularly air power. Mr. Hu recent articles for *The Reader's Digest* have attracted nationw

tention. Mr. Huie, we'd like your advice on tonight's question.
illiam Bradford Huie. (*Applause*)

r. Huie:

On this issue, I believe that the free world has no practical
oice except to strive to maintain preëminence in atomic weapons
d in the means to deliver them. I do not believe that free worlds
n covenant with slave worlds. I would have no confidence in
y agreement with the present Russian Government. I believe
at the present controllers of Russia are despots, unrestrained
the Christian ethics, and our only hope in restraining them lies
superior strength.

I believe earnestly, with Mr. Churchill, that the free world has
mained free only because of our atomic advantage, and if West-
n Europe is to continue to enjoy the Western heritage it will
because Russia continues to fear America.

I think that the defense of the West is essentially an American
oblem. Now that Russia is to have an atomic stockpile, we
ould drop the pretense that Western Europe can be safeguarded
a third World War. We should continue to aid Western Europe,
en to give it some assistance in restoring its arms, but we should
this with the understanding that if we fail to deter Russia from
r, her atomic weapons plus her hoards of ground troops can-
t be turned back at the Rhine.

I believe that Britain would be of doubtful value to us in an
mic war. Britain's ports can hardly be defended from under-
ter atomic explosions, and her teeming population provides
e world's most lucrative targets for rocket and aerial atomic
rst.

So I am opposed to the basing of any considerable portion of
e West's atomic strength in Britain. I believe, in short, that the
terrent to Russia must be erected on the American continent.
he problem, then, becomes one of means. First, we must recog-
ze another reality. If Russia is bent upon the destruction of the
est, she will certainly choose the advantage of striking the first
ow. This first blow, we are committed by our ethics to accept.
The first blow, moreover, will not be struck at any lesser power
an the United States. The Russians will never make the mistake
attacking a lesser nation and inviting us to strike the first atomic
ow. Russia will strike the first blow and it will be at the principal
ies of America.

How, then, can we pose the counterweight? If Western Europe
n be overrun and Britain can be neutralized, and if our own
untry must accept the first blow, what force can we prepare

which can retaliate instantly and assure the ultimate destruct of the aggressor?

I submit that the only power is superior bombs and super methods of delivery. As for the bombs, we must depend on same ingenuity which gave us the first bomb to assure our c tinued superiority. I believe, however, that the present Ato Commission has been guilty of vacillation and mismanagement a should, therefore, be replaced by a new civilian commission more resolute and more capable men.

As for the bombers, I believe that we have the world's b and that we can continue to have the world's best. Our strate air force is the world's only organization with vast experie in large scale bombardment. I believe that the B-29's, the B-5 and the B-36's can all go to Moscow if necessary with accepta losses.

In March, 1943, on this program, I debated with men who insis that the Flying Fortresses—the B-17's—could never bomb G many successfully by daylight. Those were the very same c credited experts who have been shouting to the world dur the past weeks that we can't bomb Russia.

I'd like to raise my voice tonight in reassurance to the f world that our cabal of admirals may be sincere and patri but that their judgment of air power is as unsound today as it w in 1943.

I believe that if Russia were to attack the free world toni American air power would ultimately destroy Russia and ena our troops to effectively control it. If we will concentrate energies on maintaining this position, the free world can hope peace. (*Applause*)

Moderator Denny:

Thank you, Mr. Huie. Our next speaker is a graduate of University of Chicago, a post-graduate of the California Instit of Technology, specializing in physics at both institutions. worked on the development of radar during the war and ser as radar adviser to the U. S. Strategic Air Force in Europe. was also a member of the Radar Committee for the Joint Chief Staff. He is, at present, professor of Physics and Dean of Graduate School at the University of Illinois. We take pleas in welcoming Dr. Louis Ridenour. (*Applause*)

Dr. Ridenour:

My training is that of a scientist. Tonight I want to consi with scientific detachment, the question, "What should the f

rld do about the atomic bomb?" Without emotional self-deceptions, I want to look at the situation of the free world today and what we should do.

Russia, we are told, has exploded an atomic bomb. Our world must live from now on under the immediate threat of atomic attack. This is no small threat. The atomic bomb is more than just another weapon. It has changed the face of warfare.

Do not be deceived by those who tell you that Russia cannot build a bomb stockpile until many years have passed. Making a bomb is an all or none proposition. You cannot make a bomb at all until you have a plant that can turn out atomic explosives in production quantity. My guess is that the Russians may have significant stockpile in two years.

Do not believe that the atomic bomb or the physical science which made it possible is in any way immoral. The basic and the overwhelming immorality is that of killing men. If we desire to kill men to pursue a policy, the bomb is an effective way of achieving that goal. The bomb is not even unique in the arsenal of hideous modern weapons. Bacteriological warfare, biological warfare, we are told, may be even more effective.

What we must control, as Mr. Baruch has said, is war itself.

Do not believe that lasting peace can today be guaranteed by any plan for world political organization. World government, to be sure, must rest upon the consent of the governed, and we cannot presently secure such consent from Russia.

Russian behavior clearly suggests the most inflexible determination to propagate Russian ideology and totalitarian methods over the whole world. Thus, we can achieve lasting peace only by yielding to this determination.

We have decided not to do this, for we value the rights and the dignity of man more than we value the safety we should secure by giving in. Thus, even in the face of the hideous threat of modern war, we have democratically decided to preserve our free institutions at the heavy price of a continued threat of war. This is a gamble, but a magnificent one. We must not forget that we have taken it, that we have chosen to defend human freedom at the cost of enduring the threat of war, for this has two important consequences.

First, we must not, in our efforts to avoid war despite its continued possibility, reduce or destroy our own free institutions. These are the stakes in our gigantic game. If we lose them, there will be no purpose left in our brave gamble. We shall have risked ourselves and our Nation and the free world for nothing.

Second, we must clearly remember that, short of surrender to

Russia, there can be no static and permanent safety for us at present time in this half of the world. We can hope, at best, o for an ever-shifting dynamic security.

This means, in practical terms, that all our decisions on pol in every turn of world events must be calculated to make Rus feel that avoiding war is more advantageous to her than wo be fighting. We can influence Russian policy only in terms of self-interest, not in terms of our own.

Every specific matter of domestic or foreign policy should tested, then, in terms of these two principles. Since we can achieve a guaranteed peace at the present time without surren of our freedoms, we have gambled on achieving dynamic pe without destroying those freedoms.

You can test every policy proposal in the field of atomic ene or any other field by asking these two questions: 1. Will proposal nibble away at or destroy the freedoms we are trying defend at so great a price?

2. Will the proposal make war seem less desirable to the R sians?

The answer to the first question must be "no," to the sec "yes."

Let us, for one example, try these questions on the idea of prev tive war, which is sometimes discussed as if it might be desira under certain conditions. Entirely apart from moral issues or doubt of its success, preventive war is clearly bad in princi for we should destroy our freedoms in fighting it, while if Russians suspected we were considering it, the desirability of t attacking us first, getting in the first blow, would be greatly creased.

I hope that these two principles may serve all of you as a for judging policy in the years to come. (*Applause*)

Moderator Denny:

Thank you, Dr. Ridenour. William L. Laurence, science wr for the *New York Times,* twice Pulitzer Prize winner, and aut of the challenging book, *Dawn Over Zero,* is, we are glad to a frequent speaker on our Town Hall programs. We would it difficult to discuss tonight's subject without this distinguis writer and observer of the atomic bomb ever since it came to Mr. William L. Laurence. Mr. Laurence. (*Applause*)

Mr. Laurence:

To answer this question properly, upon which may hang destiny of the world, we must first of all realize that to find

wer, the answer must be one that would assure not only sical but also spiritual survival, because free men without itual values are no longer free men.

o achieve that, you must, first of all, realize that fear is not attribute of a free man; that a free man must use his reason, ve all; that once he begins succumbing to fear, he thereby also es up one of the greatest attributes of his freedom.

ear today is as much a threat as, and even a greater threat n, the atomic bomb, itself. Once we give way to that, we are in ger of an atomic war. As long as we use reason, we can hope t somehow, somewhere, free men everywhere will find a col-tive answer to that.

he next thing is, then, once we avoid fear, we can also have h in the ultimate triumph of the good; have faith that man not come all this way only to end up in a cloud of atomic dust; t somehow he will be preserved for a nobler destiny.

ut, however, before we can avoid fear, and develop this faith, have got to be conscious and aware of certain facts and avoid ain misconceptions. First of all, we must realize that it is ningless to speak of bigger and more powerful atomic bombs bigger and larger stockpiles.

he atomic bomb used on Hiroshima was obsolete even before as used, yet it was large enough and big enough to destroy a . It was big enough to destroy any city in the world.

he new model bomb that we have which we tested at Eniwetok destroy larger areas, but the old model bomb or any atomic mb can destroy any city and put it out of commission, by troying its heart so that it no longer can function as a city. possession, therefore, of more powerful bombs is not in itself nething to rely on.

ussia may have a small atomic stockpile right now, or no kpile at all. It would be, however, very dangerous for us to ieve that Russia can never catch up with us. Because we must nember that 40 atomic bombs would be enough to destroy any ion in the world today. There are not enough cities in the rld to need more than 40 atomic bombs. So that 40 or 50 or a kpile of a hundred bombs would be enough to destroy any ion.

or must we delude ourselves into thinking that even the most ective system of international control and inspection such as propose would insure safety against atomic attacks in case of r. At best, such a system—even if it functions 100 per cent, ich is very doubtful—would assure that no war could start h atomic weapons since plans for the production of fissionable

material that could be used for bombs would still exist in all cou tries under the control of an international authority. These, course, would be seized immediately upon the outbreak of wa and it would only be a matter of months or weeks, or even da before the material is fashioned into bombs.

Nor can we rely on a convention to outlaw the use of atom bombs similar to the convention against the use of poison ga Poison gas, we must realize, was not used in the last war, n because Hitler or the Japanese war lords respected the conve tion, but because it was found to be an inefficient method destruction, as compared with other weapons, such as incendiari and blockbusters.

We can be certain that no nation, faced with defeat, wou refrain from using atomic bombs merely because of a conventi when its very existence was at stake.

What, then, is the answer?

Unpleasant as it is, we must face the fact that in the prese stage of world affairs, with Russia being what it is, we must re largely, for the present, on the deterrent effect that possession the atomic bomb and its inevitable use in case of war must ha against any would-be aggressor.

Unpleasant as it is, we must face the fact that at present t atomic bomb is the greatest single factor for the maintenance world peace, but we must also realize that the deterrent effe of the bomb is not absolute, and that it may gradually wither aw in an atmosphere of fear where reason is discarded.

Let us, therefore, not give way to unreasoned fear, but ho onto our faith that men, rather than end in a cloud of atomic du will be preserved for a nobler destiny.

As on an earlier occasion in our history, let us trust in God a keep our atoms dry, placing the greater emphasis, however, in o trust in God.

With our feet firmly planted on the ground, let us look up to t clouds in the dark night, and watch out for the star of hope th sooner or later will inevitably break through the blackness. (*A plause*)

Moderator Denny:

Thank you, Mr. Laurence. Our last speaker, Congressm Henry M. Jackson, represents one of the most beautiful secti in our great Nation—the second district, way up there in the nor west corner of Washington State—in Congress. But he has a mu larger responsibility to the American people as a member of

nt Congressional Committee on Atomic Energy, which is made of nine Senators and nine Representatives.

Congressman Jackson has served five terms in the House, and s given a great deal of thought to the problem we are discussing night. We are happy to welcome him to America's Town Meeting the Air. Congressman Jackson. (*Applause*)

ngressman Jackson:

Mr. Huie would like superior American planes and atomic apons. Dr. Ridenour is most concerned with a realistic approach, d with the preservation of our own freedoms. Mr. Laurence has essed a faith in the ultimate fulfillment of the destiny of man-nd.

As a member of the policy-making group in Congress in this ld, I am proposing a specific three-point program for America, signed to achieve maximum security for the free world against e atom.

Point No. 1 is the continued exploration for a system of effective ernational control that will be acceptable to all nations, for t is the only way the world can achieve permanent security. e United States has proposed a plan of control—the Baruch an.

This plan does not flow from any single political system—ours anyone else's. It stems from certain technical facts about the m which no nation can change. It has been studied and refined the United Nations. Most of the world accepts it.

I believe it is a sound and equitable plan. It is sound because places all atomic facilities in the hands of a veto-free, inter-tional agency. That is the only way to eliminate suspicion and e temptation to a production race between nations. It is equitable cause it calls upon us to give up the same things we ask of other tions, and because it offers others the same security America eks.

If we are to find an answer, the free world must continue to gotiate with an open mind, asking of each new proposal, "Will s mean truly effective control?"

At the moment, though, we must face the fact that international ntrol is not a reality. Until it is, I agree with Mr. Huie that the curity of the free world lies in continued American preëminence atomic weapons, for therein lies the deterrent to atomic ag-ession.

Our superiority may be maintained partly through increasing r production of fissionable material, and that is Point 2 of my ogram for America. But that is not the whole story.

America won the race of development. We dropped the fi atomic bomb. But it was not exclusively an American achiev ment, for no nation has a monopoly on creative brains.

When war came, America, Great Britain, and Canada decid to pool the best of their scientific talent. They had at their d posal the vast natural and industrial resources of America, b they had something else, besides. They had a fund of scienti knowledge that began to form before the turn of the centu representing contributions by scientists of many nations—De mark, Germany, Italy, France, Britain, and others.

Each scientist brought to the discovery team a few pieces o complex jigsaw puzzle. Together they fitted the pieces into picture that enabled them to harness the power of the atom. It w a coöperative achievement.

When the war ended, we decided that there should be lit or no exchange of information between our scientists and those other nations. We cut ourselves off from Britain and the Canadi members of the discovery team.

We know now that Russia has discovered the secrets of t bomb. We realize now that discovery has not stood still sin Hiroshima and it never will. The edges of the jigsaw puzzle a not and never will be square and finished. There will always a place for another fragment of scientific knowledge. We h some of the fragments, but there are scientists in England a Canada who now hold other vital pieces. Our policy of secre at all costs has had a ludicrous result. Russia now has the bon But Great Britain and Canada—our wartime research partn and our Atlantic Pact Allies—do not.

I am proposing as the third point in this program that we retu to our wartime coöperation in atomic research with Great Brit and Canada. The experience of the Manhattan project proved t the full exchange of information can be accomplished with utmost secrecy. This does not mean giving up secrets. It mea finding new ones.

Our security and the security of the free world lie not in secre alone, but in achievement and new discovery.

To choke off the development of new ideas in a world of c covery is, in my opinion, the most dangerous thing the free wo can possibly do. (*Applause*)

Mr. Denny: Thank you, Congressman Jackson. Now, gentlem I wonder whether there are any points you would like to cl up among yourselves before we take questions from the audien How about it, Mr. Huie?

Mr. Huie: Yes, I'd like to see if Mr. Jackson and I are in agr

THE SPEAKERS' COLUMN

WILLIAM LEONARD LAURENCE—Born Salantai, Lithuania, in 1888, Mr. Laurence came to the United States in 1905 and was naturalized in 1913. Mr. Laurence attended Harvard, Boston University and the University of Besancon in France. He has been a reporter with the *Boston American*, and taught philosophy at Roxbury Latin School and Mt. Auburn Preparatory School. From 1921 to 1926, he was a free lance writer and play reporter. In 1926, he joined the staff of the *N. Y. World* as general reporter and from 1927 to 1930, he was associate education editor. Since 1930, Mr. Laurence has been science news reporter for the *New York Times*.

During World War I, Mr. Laurence served with the U. S. Army. In 1937, he was awarded a Pulitzer Prize for his reporting of the Harvard Tercentenary Conference of Arts and Sciences. He is a member of many scientific and literary groups. He has written a number of plays, and his science news stories are syndicated in many papers.

Mr. Laurence was the only journalist present at the first test of the atomic bomb. He also was with the mission that dropped the second and third bomb on Nagasaki. His eye-witness account was released by the War Department on Sept. 9, 1945.

WILLIAM BRADFORD HUIE—Well known as a writer and lecturer, Lieutenant Huie, USNR (Retired) is author of *The Case Against the Admirals* and a series of articles on Air-Atomic power.

Born in Hartselle, Alabama, in 1910, Mr. Huie received his A.B. degree from the University of Alabama in 1930. From 1932 until 1936, he was a reporter on the *Birmingham Post*. From 1941 to 1943, he was associate editor of the *American Mercury*. Since 1941 he has been a lecturer. From 1943 until 1945, he served as a lieutenant in the United States Navy.

Included in the list of books by Lt. Huie are *Mud on the Stars; The Fight for Air Power; Can Do: The Story of the SeaBees; From Omaha to Okinawa;* and *Maine Stover's Revolt.* He has also written many magazine articles and stories.

HENRY MARTIN JACKSON—Congressman Jackson, Democratic Representative from the State of Washington, is a member of the Joint Congressional Committee on Atomic Energy. Born in Everett, Washington, in 1912, he received his law degree from the University of Washington in 1935. Admitted to the Washington bar, he engaged in practice with the firm of Black and Rucker. From 1938 to 1940 he was prosecuting attorney for Snohomish County. He has been a member of Congress since 1941.

LOUIS NICOT RIDENOUR, JR. — Dr. Ridenour was born in 1911 at Montclair, New Jersey. He received his B.S. degree from the University of Chicago in 1932, and his Ph.D. from the California Institute of Technology in 1936. After a year with the Institute for Advanced Study at Princeton, he stayed on for two years as an instructor. From 1938 until 1941 he was an assistant professor at the University of Pennsylvania, and from 1941 until 1946 a professor. Since 1947, he has been Dean of the Graduate College and professor of physics at the University of Illinois.

During the war, Dr. Ridenour was an expert consultant for the Office of the Secretary of War. In 1944, he also served as radar adviser for the U. S. Strategic Air Forces in Europe, and was a member of the radar commission for the Combined Chiefs of Staff from 1943 to 1945. He was also a member of the National Defense Research Commission.

Dr. Ridenour has written many articles on military and scientific subjects. He was editor-in-chief of the 27-volume Radiation Laboratory series.

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ent on this. He mentions that we have cut ourselves off from rtain assistance from Britain and Canada. I'd like to ask him the Atomic Energy Commission has done that or what agency our Government is guilty of having cut ourselves off from nada and Britain.

Congressman Jackson: I think, as Mr. Huie is well aware, the tomic Energy Act has certain specific provisions in it that makes impossible for the scientists in our country and Great Britain d Canada to exchange information relating to fissionable mate- hl.

Mr. Huie: Are you in favor of changing that law, sir?

Congressman Jackson: I think the law ought to be amende to carry out the objectives that I have mentioned here this evenin

I want to make one comment. I couldn't allow the statement stand, as far as I am concerned at least, that the present Atom Energy Commission should be changed. I think the Commissio has done a good job. (*Applause*) That is borne out by the actio taken by our committee and by outstanding industrialists ar American scientists as well.

Mr. Laurence: May I ask Mr. Huie on what he bases his charge After all, there was a hearing in Congress where all the charg were aired and the Commission was cleared of those charges wi the exception of a minority report. I think that as far as th sentiment in the country in general is concerned the feeling that the Commission had been cleared and the charges were u grounded. (*Applause*)

Mr. Denny: Well, this is just a sidelight on our subject tonigh but the Atomic Energy Commission is the group which are truste for the use and development of atomic power in this country, it's an appropriate part of our discussion. Mr. Huie, do you wi to comment on that?

Mr. Huie: My answer to that is that Mr. Laurence is welcon to his opinion as to what the majority opinion in the country I happen to support the minority report. I don't believe that th present Atomic Commission has done a good job, and I'm f changing it. (*Applause*)

Mr. Denny: Mr. Ridenour?

Mr. Ridenour: I'd like to ask Congressman Jackson wheth he's in favor of continuing to advance the Baruch Plan witho modification or whether he feels we should seek for modificatio and, if so, in what direction.

Congressman Jackson: I think, as I pointed out in my openi remarks, that we're dealing with certain immutable situatio It's a technical problem that has to be worked out, that cann be compromised. Either we have control that is effective in t field of atomic energy or we do not have control. I don't want to a party to deluding the American people into thinking otherwi (*Applause*)

Mr. Denny: Mr. Huie?

Mr. Huie: I'd like to see whether Mr. Laurence and I are agreement on this. He states that it makes little difference n as to whether we build bigger and better bombs. I'm inclined agree that that's true. Even with the Hiroshima bomb we ha a bomb that can effectively kill most any city in the world. I a

m, that that being true if our primary responsibility is now to ncentrate on a better and better means to deliver the bombs, and it isn't true that the powerful nation will be the one which has e best method of delivery. (*Applause*)

Mr. Denny: Thank you, Mr. Huie. Mr. Laurence?

Mr. Laurence: I fully agree with that, Mr. Huie. I believe also at we should not necessarily have more models of the Hiroshima mbs in spite of the fact that it is good enough. I think from the ychological point of view the bigger bomb will have a greater terrent effect than the smaller bomb.

However, unless you have methods of delivery, the bomb is eless. We must keep in mind, however, that airplanes are not e only means of delivery. They can be brought into harbors in ips and freighters and blown up in the harbor and make the rbor useless. They can also be smuggled into cities and blown there.

Mr. Denny: Thank you. Well, gentlemen, now let's get ready the questions. There are a great many questions from this resentative Town Hall audience. One special message now for r listening audience.

Announcer: You are listening to Town Meeting of the Air com- to you from Town Hall, New York, where we're discussing question, "What Should the Free World Do About the Atomic mb?" The speakers are: William Bradford Huie, lecturer and thor; Dr. Louis Ridenour of the University of Illinois; William Laurence, science writer for the *New York Times;* and Con- ssman Henry M. Jackson, Democrat of Washington.

Tonight, we want to remind you that the publisher of the Town eeting Bulletin, the American Education Press, has bound to- ther copies of all 12 of our Round-the-World Town Meetings in e convenient volume which you may secure by sending $1 Town Hall, New York 18, New York.

This volume contains a complete transcript of the Town Meet- gs held in London, Paris, Berlin, Vienna, Rome, Ankara, Tel viv, Cairo, Karachi, New Delhi, Manila, and Tokyo.

Copies of individual Town Meetings as well as a copy of tonight's ogram may be obtained by specifying which program you desire d sending your request with 10 cents for each program to Town ll, New York 18, New York. Indicate the program you desire naming the city in which the program originates. Please do t send stamps, and allow at least two weeks for delivery.

QUESTIONS, PLEASE!

Mr. Denny: Now we begin our question period with the gentle man right here under the edge of the balcony.

Man: My question is directed to Dr. Ridenour. Since Russia an the United States are deadlocked on atomic bomb controls, wh don't they work out a just and honorable compromise to outla war?

Dr. Ridenour: This is certainly outside the field of any scientifi competence I may pretend to have. I should judge that a deter mined effort to do this has been going on in the United Nation for some time and I hope will continue and was encouraged a recently as yesterday by the President of the United States i this city.

Mr. Denny: Thank you. The young man over there on the aisl

Man: I'd like to address my question to Mr. Huie. Do you thin the unification of the armed forces is necessary before we can s down and discuss control of the atom bomb with Russia (*Applause*)

Mr. Huie: Well, I can answer that very quickly. I've been a advocate of unification for many years. I certainly think that true. I think we must eliminate all the duplications in our arme forces and get more for our defense dollar so that we'll be in better position to defend the West against the forces against u

Mr. Denny: Thank you. The gentleman under the balcony ov here.

Man: My question is for Congressman Jackson. Any plan th calls for inspection must have complete coöperation to be effecti in any large area. If we can achieve this honor of nations wou inspection then be necessary?

Congressman Jackson: Well, I think inspection is absolute essential because if you do not have a system of inspection you not know what's going on. It must be constant, it must be co tinuous, in order to have effective control of atomic energ throughout the world.

Mr. Denny: Thank you. The gentleman says he's not satisfie Yes, sir?

Man: With Russia or the United States, how can we have effe tive inspection? It can be hidden quite easy, I imagine.

Congressman Jackson: Well, of course, that's the whole poi in discussing this problem tonight, as you might gather. We go the heart of the Russian problem, and until they're willing to us look in—that is, the rest of the world—through a system

spection and let their people look out, you can't solve the prob-
m of a control of atomic energy. Let's be frank. (*Applause*)

Mr. Denny: Thank you. The gentleman on the balcony.

Man: Since Russia refuses to come to terms with us on the omic bomb, what is your solution to the problem?

Mr. Denny: Well, that's just what he's suggested in his speech.

Man: I want to know more on it.

Mr. Denny: You want to know more about his—I'm afraid at's putting him on the spot and asking him to make another eech. Let's take the next question up there in the balcony.

Man: Dr. Ridenour. President Truman ordered the atomic bomb be dropped in Japan to make this world safe for free men. That eedom is again threatened. Why should we hesitate to drop it gain if we have to?

Dr. Ridenour: The question has two parts, so I'd like to make o answers. I think the immediate and direct reason for drop-ng the bomb on Japan is the one that has been stated by our ponsible leaders; namely, it was believed that it would shorten e war and save American lives and the lives of our Allies—panese lives, too, in the last analysis.

Your question about what's commonly called preventive war n be answered by citing the three objections I mentioned in y remarks.

First of all, it's contrary to all that we hold dear and important the ethical and moral sense to indulge in indiscriminate killing provoked.

Second, there is no guarantee in the present technical state of ur armaments that we could get away with it.

Third, the resulting conflict would inevitably destroy the free-oms which we are attempting to preserve in the present troubled mes. (*Applause*)

Mr. Denny: Thank you, Mr. Ridenour. My next question over nder the balcony?

Man: My question is addressed to Mr. William L. Laurence. hy not give power of decision on the atom bomb to a committee noted scientists and religious leaders of the world instead of stubborn diplomats? (*Applause*)

Mr. Denny: We have all kinds of ideas here tonight, Mr. aurence.

Mr. Laurence: Well, I don't feel qualified to answer that ques-on, but I do say I don't know why scientists should be given is responsibility as scientists because that is not a scientific uestion; it's a political question. I think the decisions really ould be made by the collective wisdom of all the people, going

upward till it reaches their leaders, so that their leaders will kno what the people have decided. (*Applause*)

Mr. Denny: Thank you. The trouble is we can't get to the Ru sian people. All right, Congressman Jackson.

Congressman Jackson: Mr. Denny, I wonder if I could suppl ment some remarks in that connection? In connection with t remarks made by Mr. Laurence, I agree wholeheartedly. I thi we all should realize that in connection with the internation control of atomic energy, we have scientific personnel worki on the problem, and the decision in connection with the Baru Plan was based on scientific fact, and politicians did not ma those particular decisions. (*Applause*)

Mr. Denny: Thank you. Mr. Huie has a comment.

Mr. Huie: I think it's a little unfair for us to refer to stubbo diplomats. I think that the American moral position on the atom bomb is unassailable. Before Russia had a bomb we offered destroy all of ours. Our diplomats made that offer, so I think th as far as the offering is concerned and the Baruch Plan and o moral position, as regards Russia and the bomb, I believe we' in safe hands with our present diplomats.

Mr. Denny: Thank you. The gentleman in the balcony.

Man: I wish to direct my question to Congressman Jacksc In view of the recent surprise announcement of Russia's atom explosion, how can we as citizens best prepare ourselves nc to maintain and inaugurate civilian defense measures?

Congressman Jackson: Our committee—that is, the Joint Co mittee on Atomic Energy—is going into this subject very th oughly starting January 1. It's a complex subject, it's not o that I can properly answer at this time tonight, but I want assure you that our Government is moving forward and o committee will give the utmost consideration to this matter wh we reconvene in January. (*Applause*)

Mr. Denny: Thank you. Now a question here.

Man: My question is directed to Mr. Huie. Is it not a fact th all the governments of the world will be guilty of premeditat mass, savage murder unless they agree to outlaw the aton bomb? (*Applause*)

Mr. Huie: Well, sir, that's a difficult question as to whether would be guilty of murder if we use the bomb to try to save t western heritage or to try to save freedom in the world. I ca agree that that's true.

I believe that our leaders who decided to drop the bomb Hiroshima made a wise decision. I believe that it saved lives

lieve that if we can save freedom in the world and give western rope a further chance to revive, I would be quite willing for to use the atomic bomb and stand before the bar of world stice. (*Applause*)

Mr. Denny: Thank you. The gentleman back there on the lcony.

Man: Mr. Laurence, do you think that help to solve the problems atomic controls will come from above, as you said, or through ernational coöperation and understanding?

Mr. Laurence: Well, that sounds like the same thing in different nguage. Would you make it a little clearer what you mean by e distinction?

Man: Well, as you said, we should hope for the best and look ward Heaven for the solving of this dilemma. Do you think that on earth should do more about it than just waiting?

Mr. Laurence: Well, I certainly do. I said that we should not e our minds—not lose our reason and simply act unfair—cause that's not the way a free man should act. The second nt I made is that if we do that, if we use our reason, that free an must and will eventually triumph. That, of course, is faith, it's not based on mere mysticism, because, if you go through n's history, you will find that he has faced similar crises in past and has overcome them. Somewhere or another unless have faith in the ultimate triumph of good over evil then we e lost one of the greatest tenets of faith that man has. pplause)

Mr. Denny: Thank you. The lady there, please.

Lady: Mr. Laurence, can there be any possibility of real under-nding and coöperation with Russia on the bomb, with their esent leadership and their attitude toward the world?

Mr. Laurence: I do not believe it's possible, and that's why I d I think that at present—at the present state of world affairs d with the Russian leaders as they are—I think any thought of ective international control over atomic energy is a pipe dream. at doesn't mean that we shouldn't keep working at it, and ping, but I do think that the chances for it are very slim deed, at present.

Mr. Denny: Thank you. The young lady over here.

Lady: I'd like to ask Mr. Huie how he thinks that either Russia the United States can agree on international control of atomic ergy in the atmosphere of suspicion and hate generated by e atomic race?

Mr. Denny: That's asking the same question, but just making a little harder, Mr. Huie.

Mr. Huie: Well, as I stated a few moments ago, I don't thi that it's possible for free worlds to agree on anything with sla worlds, so I don't expect any agreement between our own Gove ment and Russia. I wouldn't have any confidence in it if reached one. (*Applause*)

Mr. Denny: Thank you. The gentleman in the balcony, first r

Man: I direct my question to Dr. Ridenour. Are scienti doing as much research on the use of atomic energy for ma welfare as they are for his destruction?

Dr. Ridenour: I can't answer that with full and complete kno edge of what goes on within the Atomic Energy Commission cause I'm not officially connected with it. I think that if th are they're neglecting one of the paramount problems of present moment, and I don't believe they're doing that.

Mr. Denny: Thank you. Congressman Jackson has a comm on that.

Congressman Jackson: I'd like to add that the Commission been doing a lot of work in the field of biology and medici particularly with reference to cancer. You've heard a lot ab the isotope program, and so on. In the field of agriculture, we doing a lot. But we must be honest with our people. I'm sure we doing what the American people demand in this hour and t is to concentrate on our weapons program.

Mr. Denny: Thank you. The man here in the aisle.

Man: I address my question to Dr. Ridenour. Must we fight democracy with an atomic bomb? Is it possible to spread dem racy through the United Nations with more housing, food, a shelter?

Dr. Ridenour: As I understand our policy, we are striving do that. As I understand our policy with respect to military affa it's not our intention to start dropping atomic bombs arou unprovoked.

Mr. Denny: Thank you. Now the lady in the balcony.

Lady: My question is directed to Congressman Jackson. Jackson, do you believe that the U. N. could keep all wars un control by having a strong, prepared, well-equipped force arms available at all times?

Congressman Jackson: Well, I think that's one of the eleme but unless we control the weapon—in this instance atomic ene —at its source to make sure that the material does get i the hands of any single nation, we would not be able to accomp that objective.

Mr. Denny: Thank you. The young man in the balcony.

lan: Do you think the atomic bomb brought the United States
Russia any closer to war than before?
Ir. Denny: Did the atomic bomb bring us any closer to war?
Ir. Laurence: Just the opposite. I think today the atomic bomb,
said before, is the greatest weapon for maintaining world
ce that we have. I agree with Churchill that if it hadn't been
the atomic bomb probably we would be at war today.
Ir. Denny: Thank you. The young lady over here.
ady: I'd like to address my question to Congressman Jackson.
't you think that a vicious circle will develop if we begin
ng neck and neck with Russia in obtaining more and more
tructive war equipment?
ongressman Jackson: No, I believe that if our powder is dry,
e have effective weapons, it acts as a deterrent in the absence of
national control of atomic energy. It is the only recourse that
have in the situation that now confronts our Nation and the
ons of the free world.
Ir. Denny: Thank you. The young lady down here. Yes, go
ad.
ady: I direct my question to Congressman Jackson. What will
ve benefited the United States by keeping the atomic bomb
et, since scientists agree that it will eventually be discovered?
ngressman Jackson: Well, of course, I've tried to comment
tonight on the fact that we reached a rather ludicrous decision
nnection with some of our policy of secrecy. Russia has the
b, but our wartime partners who worked on this project do
have the bomb. I think that there is a happy medium in this.
lieve our entire program of secrecy will be looked into very
rtly so that we'll have a more realistic program that will
lt in achievement, because that is the real basis for security
the free world. (*Applause*)
Ir. Denny: Thank you. The lady on the aisle here.
ady: I'd like to address my question to Mr. Huie. Why can't
atomic bomb be outlawed and instead concentrate on world
rmament instead of discussing the possibilities of war?
Ir. Huie: Why can't we quit talking about war and outlaw the
nic bomb? Well, those of us who are talking about war at this
ment are not necessarily persons who are bloodthirsty and
want to start killing somebody. It's simply that we do not
w of any other way to deal with this enigmatic Russian Gov-
ment. It takes two people to make a deal for peace. We've
le the offer, repeatedly, and don't get any coöperation from
n. Therefore, our only answer is that we have to try to remain

stronger than they are so that we can try to get them to stay their own backyard. (*Applause*)

Congressman Jackson: I think we're getting confused on o issue. It sounds simple to outlaw the atomic bomb. The Kellog Briand Pact, as I recall, outlawed war, but we had war. The poi is—and we must not forget about this essential point—that must have an effective system of international control of atom energy before you can outlaw the atomic bomb. Let's not get t cart before the horse. (*Applause*)

Mr. Denny: Thank you. The man in the balcony.

Man: I'd like to address my question to Congressman Jacks In establishing international control of atomic energy, would be necessary to limit its development for peacetime use?

Congressman Jackson: Well, you can't differentiate between t two. Let us put it in this way. The stockpile of atomic bombs th you've been reading about from time to time can be used peaceful purposes, as well as for warlike purposes. It's ener It's like petroleum that can be used in a tank to operate in ti of war, but it also is fuel that can be used to operate your auton bile. I hope that answers the point.

Mr. Denny: Thank you. The next question, quickly.

Lady: I'd like to direct my question to Mr. Huie. You sta that our only safeguard lies in our maintaining superiority o fearful Russia. As Russia has been progressing as we have, h would you assure our superiority and how can we stop th progress from surpassing us?

Mr. Denny: You have ten seconds to answer that o (*Laughter*)

Mr. Huie: How can we maintain our superiority over Russ With airplanes, I suppose. Well, the only way we can do it is depend on good old American ingenuity, which has saved in the past. It gave us the first bomb, it gave us the strong airplanes in World War II. I think perhaps we can depend o in the third. (*Applause*)

Mr. Denny: Thank you, Mr. Huie. Now, while our speak prepare their summaries of tonight's discussion, here's a spe message of interest to you.

Announcer: Now that we're back home in Town Hall, New Y we want to urge you, our listeners, to continue to help us se the programs and speakers for America's Town Meeting. Du the past fourteen years your suggestions have been most help and many of our letters from listeners have been responsible some of our best programs.

here is no lack of topics to discuss and we do our best to bring outstanding authorities discussing timely topics each week. 're greatly aided by your suggestions.

ncidentally, to those of you who have read the article in the rent issue of *Pageant* magazine, "What's Wrong With Our urches?" which was prepared in connection with the program were to have had tonight, we want you to know that this has been postponed to November 22. The program with Miss gilia Peterson, writer; Dr. Frederic Wertham, psychiatrist; Irwin Edman, professor of philosophy at Columbia Uni- ity, will be heard at that time—November 22.

ow, for the summaries of tonight's discussion, we return you to Denny.

r. Denny: Congressman Jackson, may we have your summary, ase?

ongressman Jackson: Well, Mr. Denny, in summary first let ay I believe the Atomic Energy Commission has been doing od job. I believe that America as the leader of the free world ld, in the absence of international control, return to the war- coöperation with England and Canada which meant progress ng the war. The knowledge that Russia has found the bomb ld convince us all that progress is again the keynote to the rity of the free world. (*Applause*)

r. Denny: Thank you, Congressman Jackson. Now, Mr. Wil- L. Laurence.

r. Laurence: We must face the facts of the atomic age as they and face them calmly without giving way to unreasoned fear, uch fear constitutes a greater danger to a free world than the mic bomb itself.

We must remember that mankind has faced other crises in its ory and triumphed over the forces of evil. Remembering and using our reason, we can face the future with confidence he ultimate triumph of the free spirit of man. (*Applause*)

Ir. Denny: Thank you, Mr. Laurence. A final word from Dr. uis Ridenour.

Dr. Ridenour: We cannot escape the trying destiny of our time ough the old misleading loopholes: the bomb is not so ter- le, the Russians can't learn the secret—but they have—or the nb must be outlawed. None of these, at the moment, is a true eguard. We're opposing Russia at a real risk for the defense ur freedom. While we do so we must steadfastly maintain those edoms while we make every effort to avoid being pushed or gged into war. (*Applause*)

Ir. Denny: Thank you, Dr. Ridenour. Now, Mr. Huie.

Mr. Huie: There is little hope for the free world or for any the world in a third world war. Our hope is that Russian aggress can be halted, postponed, and contained. My belief is that challengeable American air power is the free world's best h thus to restrain Russia and to give us peace. (*Applause*)

Mr. Denny: Thank you, Mr. Huie, Dr. Ridenour, Mr. Laure and Congressman Jackson. We are grateful to each of you to this fine audience here in Town Hall for bringing us face to f with the realities of this grave problem.

Next week—November 1—we're going to discuss the quest we found to be of paramount interest on our world tour. We fin of equal interest on our return home. That subject is: "Are Depending Too Much on Government for Our General Welfar Two outstanding United States Senators will be our speak Senator Owen Brewster, Republican of Maine, will take affirmative view; and Senator Hubert Humphrey, Democrat Minnesota, will uphold the negative position.

The following week, November 8, our subject will be: "Sho the Communist Party Be Outlawed Now?" Remember, for a c of tonight's discussion and all Town Meetings, you may send cents to Town Hall, New York 18, New York, and you will rece your copy. It'll take about two weeks. Please do not send stam Send 10 cents to Town Hall, New York 18, New York, for any of our Town Meeting Bulletins.

Plan to be with us next week and every week at the sound the Crier's Bell.

istration of a pancreatic stimulant, a change in blood coagulability was found in a significant number of patients with chronic relapsing pancreatitis and pancreatic carcinoma.

The test consists in adding sodium polyanhydromannuronic acid sulfate (paritol-C), a synthetic heparinoid, to nine Wassermann tubes in graded concentration from .18 mgm. in tube 1 down to .02 mgm. in tube 9. A tenth tube, containing 0.1 ml. of veronal buffer (*p*H 7.3–7.4) serves as a control. A 10 ml. sample of blood is drawn by a clean venopuncture into a desiccated 20 c.c. syringe with a 20-gauge needle, and 1 ml. of blood is added immediately to each of the ten tubes (starting with tube 1) following the removal of the needle from the syringe. The tubes are corked and tipped to 80 degrees from the vertical twice; the specimen is then set aside at room temperature, and 30 minutes from the time of emergence of blood into the syringe the tubes are tilted (starting with tube 1) to determine the tube with the first gel-clot.

To be considered a positive test, a minimum change of two tubes toward tube 1 was deemed necessary following the injection of the drugs. Using secretin alone, positive tests were obtained in 6 of 11 patients with carcinoma of the pancreas, 6 of 8 patients with chronic pancreatitis, and in only 1 of 35 patients in the control group. With secretin and urecholine in combination, positive tests were noted in 5 of 8 patients with carcinoma of the pancreas, in neither of 2 patients with chronic pancreatitis, and in 6 of 18 control patients.

It is hoped that future studies with this test may prove it to be of value in revealing early derangement in pancreatic function and thus supplement the secretin test in the diagnosis of pancreatic disorders.

STEPHEN A. ZIEMAN, M.D.

Insulin Tumors of the Pancreas. JOHN MORLEY. *Brit. J. Surg.*, 1952, 40: 97.

The diagnosis of insulin tumors of the pancreas is based on Whipple's (1944) triad of symptoms:

1. Nervous, or occasionally gastrointestinal, attacks in the fasting state.

2. A fasting blood sugar of 50 mgm. per cent or lower. (In 80 per cent of the cases it is below 40 mgm. per cent.)

3. Immediate, or almost immediate, relief from the ingestion of glucose.

The nervous symptoms that suggest such a tumor are numerous but are well remembered by alliteration

found in all probability. Recently, Crain and Thorn have described a simple subcutaneous adrenalin test which excludes anterior pituitary or adrenocortical deficiency, and a subcutaneous adrenocorticotropic hormone test which excludes adrenocortical deficiency.

Insulin adenomas may occur at any age but are most common in patients between 40 and 50 years old. There is no significant difference between the sexes as regards frequency.

Number of tumors. Crain and Thorn collected 228 cases of benign adenomas and 24 malignant tumors. Of the 228 benign tumors, 206, or 88 per cent, were single and only 22, or 12 per cent, were multiple and then only 2 were present as a rule. Of the 24 malignant tumors, 20 were single and 4 were multiple. There were 6 cases of diffuse adenomatosis of the pancreas.

Size of the tumors. The majority of the tumors (75%) were between 1 and 3 cm. in diameter. The largest recorded was 11 cm. in diameter. The size of the tumor is not significantly related to its functional activity. Some of the smallest tumors gave rise to the most profound hypoglycemia. In the author's cases, the 4 patients who had a tiny single adenoma in the tail of the pancreas had symptoms just as dramatic as those of the patient with five adenomas.

Distribution of the tumors. Insulin tumors of the pancreas occur fairly evenly throughout the various parts of the pancreas, and not so predominantly in the tail as some authors have suggested. They are much more easily palpated in the tail and in the head or neck of the pancreas and this may account for the preponderance as reported lying in the tail. Nine cases of insulin tumors in an ectopic pancreas, in the duodenum, or in the immediate vicinity of the pancreas have been recorded.

Malignancy. Although less than 10 per cent of these tumors are definitely malignant as proved by metastases in distant parts, such as the liver or lymph glands, a considerably greater proportion have been suspected of local malignancy on the purely histologic evidence that the growth had breached the capsule in one or more places. A number of careful 5 year follow-ups of considerable groups of such cases has shown that they do not recur or give rise to later metastases.

Duration of the preoperative symptoms. In many of the recorded cases the patients have had symptoms for many years that were finally proved to be due

symptoms were real is confirmed by the early visit to a physician by those 63 patients from whom the information was obtained; 29 visited their physician immediately and 54 (85%), within 3 months of the onset of their symptoms. Pain was the most frequent symptom, being absent in only 19 (16.6%) of the patients. In 34 patients (20.8%) pain was a complaint for more than 4 months before admission to the hospital for definitive treatment. Anorexia and jaundice were symptoms of shorter duration. Significant weight loss had occurred before admission in 90 (84%) of the 107 patients on whom this information was obtained. In 48 of the 93 patients (50%) in whom the duration of weight loss was known, this had been observed for a period of more than 3 months. Despite these obvious signs of serious illness, jaundice was the only symptom or sign actually used in bringing patients to treatment in an operable state. Jaundice was noted in 87 of the 122 patients, and in 41 of these it had been present for 1 month or was first observed after the patient's admission to the hospital. In 18 of these patients it had been noted for 2 or more months before definitive treatment.

The presence of clinically determined physical signs was less apparent. An enlarged hard liver was present in over half (66) of the patients. This finding, however, did not of necessity indicate inoperability, since in many instances the condition was due (as shown in autopsy series also) to hepatitis or ascending cholangitis. The presence of a distended gallbladder was noted in only 26 cases, although the gallbladder and the common duct were found to be distended in over 50 per cent of the cases in which exploration was done. A distinct mass in the region of the pancreas was even less frequently reported (18 times).

In the total group of 122 cases, 96 patients had adequate roentgenographic examinations. Only 8 had signs such as widening of the duodenal loop, considered diagnostic of carcinoma in the region of the head of the pancreas. Three of the patients on whom resection was done did have some duodenal deformity, and one of these was a patient who survived 5 years and 4 months. Two others have evidence of extrinsic pressure on the duodenum, probably from a distended gallbladder.

This summary indicates that of the 33 cases in which the patients were not operated upon, the average survival time was 5 weeks, with a maximum survival of 4 months. Among 28 patients subjected

involving the head of the pancreas had resection of the head of the pancreas, duodenum, and distal stomach with choledochojejunostomy, closure of the pancreatic stump, and gastrojejunostomy. Four of these succumbed postoperatively, an operative mortality of 33.3 per cent. Eight operations were done in one stage with a 37.4 per cent hospital mortality, and 4 were done in two stages with 1 death, or a 25 per cent mortality. One patient survived for 5 years and 4 months and died of probable recurrence, 1 patient still survives, over 6 years after resection without recurrence, and 2 other recent patients still live, one over 1 year, and the other 4 months after surgery.

Of the 39 patients who were treated from 1941–6, the period during which 5 year survivors could have appeared in a resected series, diagnoses were pathologically proven in 27. In 8 patients resections were done; 2 of these patients survived for more than 5 years. It would appear from a survey of the literature that there are at least 4 other 5 year survivals of carcinoma of the head of the pancreas, in addition to numerous survivals among patients with carcinoma of the ampulla of Vater.

Diagnosis at the time of operation has been a serious problem to most surgeons. In this group of cases diagnosis had apparently been successfully established either on clinical grounds or by patho-

Diagnosis and Treatment of Intraepithelial Carcinoma of the Cervix (Diagnostic et traitement de l'épithélioma pavimenteux intraépithélial du col utérin). P. FUNCK-BRENTANO, R. MORICARD, R. PALMER, J. DE BRUX, and H. WENNER. *Mém. Acad. chir.*, Par. 1952, 78: 629.

These associates from the Broca Hospital prefer the term intraepithelial carcinoma for the disease they are discussing. In a 1-year period they found 12 cases. The patients complained of sterility, metrorrhagia, leucorrhea, and premenstrual tension. Only 6 showed an erosion.

The site for biopsy was selected by the Schiller test and the colposcope. The authors did not consider the colposcope superior but they like to use it in the study of diseased cervices. They discuss the limitations of cytologic studies, one of the most important being the shortage of technical personnel. Although they found that the smear disclosed intraepithelial carcinoma earlier than any other method, they had 3 cases with negative smears. Biopsy was used for the final diagnosis in all cases. The shortcoming of the smear in following up cases of carcinoma after radiotherapy was that no information on lymph node metastasis was given. The authors lament the fact that the publicity given to early diagnosis in the press and on the radio resulted in the advertisement of smear services by pharmacies. Their treatment is total hysterectomy with preservation of the adnexa.

A discussant, MOULONGUET, can see no sense in removing the entire organ when the disease is confined to one small part of it; he amputates the cervix. Another discussant, DENOIX, makes a plea that all cases be submitted to the new Registry of Intraepithelial Carcinoma at the National Institute of Hygiene so that eventually some of the problems of this disease can be solved.

JAMES HENRY FERGUSON, M.D.

Surgical Therapy of Carcinoma of the Cervix (Zur operativen Therapie des Kollumkarzinoms). G. HALTER. *Wien. med. Wschr.*, 1952, 102: 621.

The author discusses the different methods of management of carcinoma of the cervix. For a number of years roentgen therapy was considered the treatment of choice by many gynecologists. However, lately the consensus of most European and American surgeons is that surgery offers better results in most cases. This change of attitude is due partly to the better chances provided by antibiotics

vesical floor, pregnancy, and tumor of the adnexa.

The technique of the vaginal operation is discussed in detail. The author uses a modification of the method devised by Amreich. This surgeon severs the three portions of the parametrium (vesicouterine, transverse, and sacrouterine ligaments) separately. To isolate the ureter, the vesicouterine ligament is cut laterally. The cranial portion of the ureter is thus visualized first, before the prevesical portion.

The author of the present article modified this technique because of the danger of venous hemorrhage. He isolates first the prevesical portion of the ureter in situ before moving the bladder upward. Only after this has been performed is the vesicouterine ligament severed laterally to the ureter.

With this method it is possible to extirpate the regional lymph nodes in the parametrium.

WERNER M. SOLMITZ, M.D.

Cytologic Aspects of Carcinoma of the Corpus Uteri (Aspects cytologiques du carcinome du corps uterin). CL. GOMPEL. *Bull. Fed. Soc. Gin. Obst.*, 1952, 4: 242.

Among 2,362 patients subjected to vaginal cytologic study, there were 15 with proved adenocarcinoma of the fundus. In 4 of these the condition was clinically unsuspected. In 9 cases the clinical impression was confirmed by cytologic study and in 2 cases the diagnosis was arrived at without the aid of cytologic study.

Vaginal cytologic studies will greatly enhance the early diagnosis of carcinoma of the fundus. The presence of numerous endometrial cells in a vaginal smear should arouse suspicion. Abnormally heavy desquamation of endometrial cells is not necessarily a sign of cancer, but may be found with hyperestrinism, endometrial hyperplasia, and endometrial polyps. Details of cellular structure are of differential importance.

Increase in size of the nucleus and the presence of multiple nucleoli are significant. The surface of the nucleus may be calculated by measuring its diameters. While the nuclear surface of normal endometrial cells averages about 20–25 square micron, the malignant cells have nuclei with a surface of 50–75 square micron. The cytoplasm of malignant cells shows an indistinct outline and frequently contains vacuoles.

The author attributes phagocytic power to adenocarcinomatous cells; these may engulf other malig-

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399. Idem. Harlem Hosp. Bull., 1951, 4: 35.
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401. Zager, S. N. Jersey M. Soc. J., 1947, 44: 501.
401a. Zimmermann, B., and Wangensteen, O. H. Surgery, 1952, 31: 654.
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tion) for Irreducible Luxations of the Mandible. Cihat Borcbakan. *Oral Surg.*, 1952, 5: 956.

In cases of temporomandibular luxations, simple reduction should first be attempted. If this is inadequate, anesthesia should be administered and reduction then is often successful. If this is impossible, a special method of reduction, without surgical intervention, is used. This latter method is only rarely necessary—in those instances in which the discus articularis is turned backward or folded upon itself.

Arches of stainless steel wire were made for both the upper and lower jaws and were fastened to the teeth with soft stainless steel wire. A hook was added to each side of the arch, and with a small pad of gauze between the molar teeth, acting as a fulcrum, constant traction was applied between the forward portions of the upper and lower arches. With this gradual force overcoming the contraction of the ligaments and muscles of the joint, the condyle will jump over the tuberculum articulare and return to its proper position within 2 or 3 days.

Herbert J. Karol, M.D.

Preservation of the Facial Nerve in Operations for Benign Conditions of the Parotid Area. Louis T. Byars. *Ann. Surg.*, 1952, 136: 412.

The accidental severance of the facial nerve in operations for benign lesions of the parotid gland is largely avoidable provided that the surgeon is familiar with the anatomy of the facial nerve and has the patience to carry out a simultaneous dissection of the nerve. Blair, Adson, and Brown have previously emphasized that the facial nerve should and can be preserved. The author presents a new method of identifying the nerve within the substance of the gland so that it may be visualized and avoided.

The facial nerve emerges below the inferior margin of the ear canal deep to the parotid, and divides a short distance anterior to the canal. The two branches run forward—one upward, the other downward. The smaller fibers abruptly become superficial at the anterior margin of the gland. Every tumor of any size within the substance of the gland displaces the nerve. The tumor may be superficial or deep to it, and may even encroach and displace both major divisions. Adequate exposure must be obtained under general anesthesia with the entire side of the face draped to permit observation of twitching. The incision extends along the anterior and inferior margins of the ear, then behind the ear and

lens which develop in the first 2 or 3 weeks after x-irradiation with 1,500 roentgens were analyzed, it was found that almost all lesions were less pronounced in the cysteine-pretreated eyes than in the eyes rayed before the use of cysteine.

Inhibition of cell division, recovery, and compensatory increase of mitotic activity of the lens epithelium induced by x-rays differed very little in cysteine-pretreated animals and in nonpremedicated controls.

Glutathione and thiourea were less effective than cysteine in increasing the radioresistance of sensitive elements of the lens. Sodium thioglycolate and dimercaprol (Bal) were ineffective. Pretreatment with other reducing chemical agents (dihydroxyacetone and tocopherol), with the citrovorum factor and with cyanide did not reduce the injurious effect of 1,500 roentgens applied locally to the rabbit eye.

JOSHUA ZUCKERMAN, M.D.

Choroideremia. Clinical and Genetic Aspects. ARNOLD SORSBY, A. FRANCESCHETTI, RUBY JOSEPH, and J. B. DAVEY. *Brit. J. Ophth.*, 1952, 36: 547.

Choroideremia was studied in three families whose pedigrees were investigated over three generations. Numerous excellent fundus pictures are presented, many in color. Comparisons made after an interval of 13 years clearly demonstrate the progressive nature of this disorder in the male. The choroidal vessels become unmasked and sclerosed before disappearing. Almost to the end a reddish central area is retained as well as a ring of intact retina around the disc. The process spreads very slowly from the periphery towards the center with retained islands here and there. The fundus reflex changes from red to yellow, and then to white.

The symptoms are similar to those of retinitis pigmentosa. Night blindness is frequent and the central vision may remain good after the peripheral fields are extremely constricted. Blindness rarely sets in before the age of 40. Choroideremia is an independent entity unrelated to retinitis pigmentosa. Only men are fully affected.

The evidence of intermediate sex-linked inheritance is conclusive. In the progeny of an affected male, all the sons are unaffected and all the daughters show the disturbance in the carrier state, which is ophthalmoscopically recognizable if suspected. The carrier fundi show the following diversity: (a) exclusively peripheral disturbance of the pepper and salt type which may have a pigmentary overlay;

affected man must have a mother who shows the carrier state. JAMES E. LEBENSOHN, M.D.

Radioactive Di-Iodofluorescein in the Diagnosis of Intraocular Tumors. P. D. TREVOR-ROPER, K. A. NEWTON, and J. P. NICHOLSON. *Brit. J. Ophth.*, 1952, 36: 543.

Phosphorus 32 emits beta rays with a maximum range in tissue of about 7 mm., but di-iodofluorescein with iodine 131 incorporated emits gamma rays which penetrate several centimeters of tissue. The latter would consequently seem preferable as a diagnostic test of intraocular tumor. To avoid radiation hazard, not more than 1 mc. of radioiodine was administered. Geiger counting was begun 2 to 4 hours after intravenous injection. The count rate over the thyroid did not greatly exceed that over the thigh, indicating that the iodine of the dye was not readily taken up by the gland, and consequently involved little radiation hazard to it.

Eight cases of malignant melanomas and 1 case of retinoblastoma were investigated. No significant differential between the uptake of the radioactive dye in the affected eye was noted in these cases as compared with that in the rest of the body; hence this technique cannot be recommended as a diagnostic procedure. JAMES E. LEBENSOHN, M.D.

EAR

Anatomical Considerations of Ménière's Disease. A. C. FURSTENBERG. *Ann. Otol. Rhinol.*, 1952, 61: 692.

The author states that Meniere's disease is assumed to imply a lesion of the internal ear. The stimuli are carried into the brain from the ampullary ends of the semi-circular canals over the vestibular nerves with cells of origin in the vestibular ganglion, and end in the four vestibular nuclei (superior, medial, lateral, and inferior) and in the cerebellum. The medial and lateral vestibular nuclei are believed to be related particularly to impulses from the horizontal canals. From the medial and lateral vestibular nuclei, fibers cross the midline and ascend in the medial longitudinal fasciculus to the abducens nucleus where they synapse with motor neurons supplying the lateral rectus muscles, and with para-abducens cells. These latter cells send their neuraxes forward through the medial longitudinal fasciculus to the portions of the oculomotor nuclei supplying the contralateral medial rectus.

other measures, and in 5 cases of hyperthyroidism (in 4 cases due to Graves' disease and in 1 case to an adenomatous goiter which had presented unusual difficulties in preoperative preparation). The drug reaction was followed by means of serial determinations of blood cholesterol, protein-bound iodine, basal metabolic rate and radioiodine (I^{131}) uptake and excretion.

Corticotropin appeared helpful in thyrotoxic crisis but only moderately so in the patients with hyperthyroidism, although all withstood the surgery remarkably well.

It was concluded that corticotropin therapy does not seem to offer any useful addition to the current methods of medical treatment of hyperthyroidism. In patients with thyrotoxicosis, however, who require surgical treatment and in whom conventional medication is partly or wholly ineffective, corticotropin is a helpful agent of preoperative preparation. The use of hormones in the treatment of thyrotoxic crisis likewise seems justified.

The method of drug operation is believed to be through the anti-stress response of the adrenal cortex. STEPHEN A. ZIEMAN, M.D.

Discussion on the Operative Removal and Plastic Repair in Cases of Carcinoma of the Hypopharynx and Upper Esophagus. R. D. OWEN, EMLYN LEWIS, J. P. REIDY, V. E. NEGUS, and Others. *Proc. R. Soc. M., Lond.*, 1952, 45: 255.

R. D. OWEN. Accurate localization is required for the operative removal and plastic repair of carcinoma of the hypopharynx and upper esophagus. The five starting points of epithelioma of the hypopharynx are (1) the aryepiglottic fold, (2) the pyriform fossa, (3) the lateral pharyngeal wall, (4) the posterior pharyngeal wall, and (5) the posterior cricoid area, and the cervical esophagus may be included. The resulting lesions differ in symptoms, prognosis, and treatment. A lateral, transthyroid pharyngotomy may be used for (1) an early aryepiglottic fold lesion, (2) an early lateral pharyngeal wall lesion, (3) a lesion of only the posterior pharyngeal wall, and (4) an early upper esophogeal lesion. The only treatment for pyriform fossa carcinoma is pharyngolaryngectomy.

In early lesions of the pyriform fossa, a unilateral block dissection is first done, then removal of the thyroid lobe, the hyoid bone, the larynx, and the involved segment of pharynx, starting from above

or without fixation of the vocal cords. The spread is frequent, both laterally and downward. Removal is possible only by pharyngolaryngectomy. Excision presents no actual difficulty. The real problem is repair and restoration of function. In the past the repair has been done in stages, but during the past 2 years primary closure with skin grafting has been attempted. Local growths of the posterior wall of the laryngopharynx may be locally excised, as may localized growths of the cervical esophagus. A complete segment of the lower pharynx can be removed through a left lateral pharyngotomy. The defect thus made can be repaired by making a gutter with a good lateral skin graft, which method was devised by Trotter over 30 years ago and modified by Wookey. The Wookey lateral flap is reliable provided the blood supply to the upper portion of the sternomastoid is intact. Removal of the sternomastoid during extensive block dissections may jeopardize this flap. Undue tensions are avoided especially at the cutaneous-esophageomucosal approximations. It is important to avoid abductor fixation of the cords which occurs (1) from injury of the opposite (right) recurrent laryngeal nerve during extreme rotation of the larynx during dissection, (2) from suture of the skin flap too close to the arytenoids, or (3) from subsequent scarring and fixation of the posterior aspect of the larynx and the skin to the prevertebral fascia. In the event of cord fixation, a permanent tracheotomy is required. A poor bridge of skin may result between closely placed tracheal and lower esophageal stomas The author prefers U-shaped flaps.

Emlyn Lewis discusses plastic repair and indicates certain technical details concerning the flap covering the prevertebral fascia or the posterior surface of the larynx during lateral pharyngotomy as described by Trotter in 1913. He states that the best dressing for a raw surface is a skin graft. The reconstruction following removal of the larynx should be done as soon as possible, even in one operation, with or without a skin graft. Delaying repair is uncomfortable and predisposes to whispering speech. The new gullet is constructed by wrapping a skin graft, raw surface outward, around an artificial lumen made of portex or other stent. The expanded upper end is fixed in the pharynx by a purse string suture while the lower end lies snugly in the esophagus. To assure apposition between the graft and the undersurface of the flap, pressure is applied by carefully packing wool which is impregnated with paraffin and flavine over

In this author's experience, immediate reconstruction with a graft on a tube should not be done when a tracheotomy already exists. The risk of infection is too great and the whole graft may break down; also, inhalation bronchopneumonia may occur.

An adequate balanced diet is given through a Jacques tube. After-treatment includes lessons from the speech therapist in esophageal speech, which most patients find difficult after total pharyngolaryngectomy but easier after laryngectomy. An artificial larnyx may be used.

V. E. Negus reported the use of a plastic tube in the repair but does not favor the U-flap.

Ronald Raven had 18 patients with involvement of the hypopharynx or cervical esophagus, of whom the majority exhibited advanced carcinoma. Twelve underwent laryngoesophagopharyngectomy, 4 laryngopharyngectomy, and 2 pharyngectomy, with no operative mortality. Twelve lived 1 year or more afterward. The longest survival was 34 months. Conservation of the larynx is not advised. Bilateral block dissection of the neck must be done.

R. G. Macbeth stated that the help of the plastic surgeon was needed and stressed early removal of the plastic tube and also the advisability of a radical neck dissection at the time of the single operation.

Geoffrey H. Wooler advocates surgical treatment in one operation. He reports a case of involvement of the pyriform fossa which spread to the entrance of the esophagus. By immobilization of the esophagus down to the aortic arch, it was possible to anastomose it to the pharyngeal mucosa. This patient made a rapid, uninterrupted postoperative recovery.

David Movitz, M.D.

omy as described by Freeman and Watts should be restricted to very ill psychotic patients. The author points out that very major postoperative personality defects can be expected after this operation. He therefore believes also that small localized frontal lobe ablations, performed in skilled hands and carefully appraised, are indicated in selected patients who are not sick enough to be subjected to the major lobotomy. He points out the importance of assessing the patients on the basis of their social adjustment as well as by the established methods of clinical evaluation. JOSEPH RANSOHOFF, M.D.

Brain Tumors in Childhood. FRANK J. OTENASEK. *Surg. Clin. N. America*, 1952, 32: 1363.

The purpose of this article is to emphasize the fact that intracranial tumors in childhood are not necessarily hopeless, regardless of their apparent preoperative or even operative incurability. Five illustrative case histories are given.

The first case, both by examination and ventriculography, showed evidence of a midline cerebellar lesion, presumably a medulloblastoma; however, a large midline astrocytoma was found and completely removed.

The second child had a medulloblastoma; it was subtotally removed and the child was given x-ray therapy. Three years after the operation the child appeared normal and was attending school.

The third patient, with symptoms and signs of increased intracranial pressure, was found to have an infiltrating astrocytoma of the optic chiasm and nerves. A hopeless prognosis was given. Deep x-ray therapy was administered, and the symptoms of increased intracranial pressure disappeared in a few weeks' time. When seen, 5 years later, vision was very poor bilaterally and there was marked bilateral optic atrophy; however, at that time the child was attending a school for the blind and leading a happy life.

The fourth case (a 5-year survival) was that of a diffusely infiltrative astrocytoma of the brain stem. Operation in this case failed to relieve even the obstruction to cerebrospinal fluid flow through the fourth ventricle.

The last child had a malignant meningioma and died 3 years following surgery and x-ray therapy. This survival apparently helped to preserve the sanity of her mother by allowing another pregnancy to culminate.

chromophobe adenoma is by far the most common tumor of pituitary origin requiring operation. The two most important diagnostic findings are the characteristic bitemporal hemianopsia and enlargement of the sella turcica in the roentgenogram.

Concerning the operative approach to these tumors, the author prefers a right frontal flap, the operation being carried out extradurally down as far as the sphenoid wing. He believes in removing as much as possible of the body of the tumor along with an extensive resection of the capsule. Postoperative x-ray treatments are restricted to those cases in which an unsatisfactory removal of tumor was carried out or in which the pathological report is one of unusual activity or malignancy.

JOSEPH RANSOHOFF, M.D.

MISCELLANEOUS

Plastic Repair of Congenital Defects Associated with Spina Bifida and Cranium Bifidum. MILTON T. EDGERTON. *Surg. Clin. N. America*, 1952, 32: 1327.

The author has given an excellent review of the background, etiology, pathology, and incidence of spina bifida and cranium bifidum. The question of operability, particularly in relation to hydrocephalus, sphincteric damage, and paralysis is discussed with real optimism. None of these conditions is believed by the author to constitute a contraindication to surgery. He states that the course of the hydrocephalus is not harmed by the operation, and relief of adhesions in the cauda equina may actually cause a reduction in the head size. Sphincteric control and neurologic deficit in the lower extremities may also improve following repair of the defect.

The author finds large transverse double pedicle flaps to be most useful in the immediate closure of large core defects. The availability and ease of application of homogenous bank bone for the repair of skull defects is stressed. The superiority of human tissue over foreign materials in the repair is suggested. A very rare type of encephalocele involving the orbit is described and its repair is shown.

DAVID G. FREEMAN, M.D.

ciated with it are exposed to a variety of diseases. It is remarkable that the increased incidence of bronchogenic tumors has not been paralleled by an increase in the incidence of tracheal tumors. Certainly the trachea is exposed to dangers as great as those to which the bronchi are exposed. Because tracheal tumors are rare and because direct surgical attack on them has not seemed feasible, they have received little attention even from endoscopists and thoracic surgeons. Treatment has been limited to endoscopic removal of the intraluminal portion of the tumor, the implantation of radon seeds, and the application of roentgen rays. This treatment has accomplished some palliation but has never been curative of malignant lesions.

It is now apparent that a direct surgical attack can be made on some tracheal tumors. Surgical procedures performed on experimental animals have demonstrated that resection of segments of the trachea is technically feasible. Increasing experience with pulmonary and intrathoracic operations has reduced the danger of surgical intervention on the trachea. The authors have used methods and techniques developed in the experimental laboratory to operate on a small number of patients with tracheal tumors.

Tracheal tumors are found most often in men between 40 and 70 years of age. These tumors usually involve the lateral walls of the lower third of the trachea. The symptoms usually are cough, hemoptysis, dyspnea, and wheezing. Routine thoracic roentgenograms often show no detectable evidence of a tumor. Tomograms frequently are necessary to demonstrate these tumors roentgenographically.

Tracheal tumors are best diagnosed by bronchoscopy. The most common types are squamous cell carcinoma, cylindroma, adenocarcinoma, and hemangioendothelioma. Cylindromas of the trachea tend to grow slowly and to metastasize late and thus are the most favorable type of tracheal tumors for surgical resection.

In the complete article 4 cases of tracheal tumors are reported in which surgical resection of the tumor was performed. Three of the tumors were cylindromas and 1 tumor was a squamous cell carcinoma. One patient died of bronchopneumonia 6 days after operation and 1 died 2 years after operation from local recurrence and extensive pulmonary metastasis. One patient is alive and well 11 months after operation, and 1 is alive and well 1 year after operation.

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to the clinical and pathological features; they also consider other intrathoracic lesions that enter into the differential diagnosis.

Formerly regarded as being of infrequent occurrence, bronchogenic carcinoma is now considered to be of major importance. Published reports indicate that the stomach is the only organ in which primary carcinoma occurs more frequently than in the lung. Its occurrence in the lungs is attributed to changes in the mode of life of man during the last few decades (industrialization, the general use of motor vehicles on tarred roads, exposure to a variety of pulmonary irritants—smoking, radioactive emanations, and chronic bacterial and virus infections).

Among approximately 2,914 chest tumors observed at the Armed Forces Institute of Pathology, slightly more than 2,488 (85%) were diagnosed as bronchogenic carcinoma. Of 1,882 primary tumors of the stomach, 1,564 (83%) had been diagnosed as primary carcinoma. The incidence in the age group from which this material is selected is higher for primary carcinoma of the lung than for primary carcinoma of the stomach.

Analysis of pertinent data from the literature reveals that a wide variety of occupations may be represented among individuals with bronchogenic carcinoma. Likewise, the age range is extremely wide. The incidence is highest between the ages of 50 to 60, with the peak close to 55 years.

The symptoms most commonly encountered, in order of frequency, are as follows: cough, thoracic pain, sputum, dyspnea, hemoptysis, loss of weight, weakness, dysphagia, and hoarseness. In a high percentage of cases no chest symptoms whatever were reported. The suspicion of lung tumor usually leads to a series of clinical and laboratory studies, such as x-ray and planographic films, bronchoscopic and sputum studies, thoracentesis, lung puncture or thoracic biopsy, to confirm the diagnosis and determine the type of tumor present. Histologic studies of aspirated material appear to offer a means of early diagnosis of lung tumors.

In addition to bronchial adenoma, chondroma, neurofibroma, hamartoma, and cysts of the lungs, pleura, and pericardium, other lesions such as tuberculosis, pneumoconiosis, fungus infection, chronic pneumonia, and metastatic tumors of the lungs must be considered in the differential diagnosis.

In the majority of cases it is possible to recognize well defined histologic types of lung cancer; and

Armed Forces Institute of Pathology. These included 42 undifferentiated cell cancers, 35 squamous cell, 22 adenocarcinomas, and 1 pleomorphic cell type of cancer.

Bronchogenic carcinoma is the most frequently observed neoplasm of the lung and slightly exceeds the total number of cases of carcinoma of the stomach on file at the Armed Forces Institute of Pathology.

The average age was 44 years, considerably lower than the generally accepted figure of about 55 years, probably due to the greater percentage of younger men in the Army. The overwhelming predominance of males in this series is ascribed to unequal distribution of the sexes in the Army service.

The clinical symptoms produced by the various bronchogenic tumors were, in general, much the same. The average duration of slightly more than 6 months from the time symptoms were reported to the time of death agreed with durations reported in most surveys. The duration of illness in patients with pleomorphic cell cancer was significantly longer than in those with other types of bronchogenic cancer.

Metastasis was found in 94 of the 100 patients; the sites most frequently involved were the lymph nodes, the lungs, and the liver. Metastatic lesions were found at autopsy in 31, or 89 per cent, of the 35 patients with squamous cell carcinoma, indicating little difference in the frequency of metastasis compared with other cell types.

It is important not only to distinguish between the major types of bronchogenic cancers, but also to recognize the clinical and pathologic features which differentiate them from a number of other thoracic lesions. The more significant of these are alveolar cell carcinoma, bronchial adenoma, primary tumor of the pleura, and tumors of the mediastinum. The Pancoast tumor, now known to be a syndrome rather than an entity, is included in the descriptions given. The behavior of the 3 main histologic types was compared and 8 additional cases of pleomorphic cell cancers were selected for comparison with the bronchogenic types. JOHN H. MOHARDT, M.D.

HEART AND PERICARDIUM

Primary Tumor of the Heart. NATHANIEL H. SCHWARTZ and MARGARET LODER. *N. York State J. M.*, 1952, 52: 2658.

The rarity of primary tumors of the heart prompted the authors to report the case of a 39 year old colored

In the operative technique the authors use a curved anterolateral incision or a submammary incision with subperiosteal resection of the fifth or fourth rib together with its costal catilage, when valvulotomy is performed. In the cases of tetralogy of Fallot in which it is not certain before the operation whether valvulotomy is to be performed, the patient is placed in a lateral position and the operation is started with a lateral incision. In the event valvulotomy is done the thoracic incision is made longer anterolaterally, or in a shunt operation the incision is extended posterolaterally.

If valvulotomy is to be performed, 20 to 30 ml. of 2 per cent procaine solution is injected into the pericardium; the pericardium opened after 5 minutes with a door-wing incision. The incision of the cardiotomy is in the direction of the cardiac axis running along the length of the fibers. In the dissection, the last millimeter is perforated by a sound, the valvulotome is inserted, and the stenosis split. The opening is stretched with round perforated dilators so that the flow of blood to the lungs is not interrupted. The dilatation of the valve is concluded with the specially constructed dilating instrument of Brock. If the stenosis lies very low and the infundibular ventricle is large, Brock advises attacking the stenosis from above through this third ventricle.

A continuous electrocardiogram is used to recognize the threat of coronary insufficiency.

In regard to operative risk, the authors state that among 9 cases a very satisfactory result was obtained in 8 cases. Only 1 patient has died; in this case the prognosis was bad in view of severe cardiac dilatation. In one patient cardiac arrest of short duration only occurred. Results of this operation thus far may be called favorable although possible recurrences of the stenosis may eventually occur. According to the results reported by Brock and Campbell, who have conducted longer follow-up studies, the favorable situation has been shown to persist.

F. Foster Montgomery, M.D.

ESOPHAGUS AND MEDIASTINUM

Congenital Atresia of the Esophagus (L'atrésie congénitale de l'oesophage). M. J. Dabadie. *Bordeaux chir.*, 1952, 2: 57.

According to statistics, 1 of every 2,500 newborn infants has a congenital atresia of the esophagus. Within a period of 5 years the author observed this condition 15 times among 16,500 newborn infants.

JOSEPH K. NARAT, M.D.

The Surgical Management of Congenital Atresia of the Esophagus and Tracheoesophageal Fistula. N. LOGAN LEVEN, RICHARD L. VARCO, BERNARD G. LANNIN, and LYLE A. TONGEN. *Ann. Surg.*, 1952, 136: 701.

This article represents a detailed study of the surgical management of congenital atresia of the esophagus and tracheoesophageal fistula. A series of 103 cases seen at the University of Minnesota Hospitals and the Childrens Hospital in St. Paul since 1939 are reviewed.

Many authors have previously reviewed the literature and collected recorded cases. The earliest recorded instance of esophageal deformity appears to be that related by Durston, in 1670. The number of cases reported indicates that the anomaly is not rare.

In this series there were 63 male and 40 female infants. Genetic factors are cited as the causes of the condition in some cases. The embryology is described and no one embryologic explanation of esophageal anomalies will account for all types seen. Accordingly, these anomalies are divided into three main groups. In type I there is a complete absence of the esophagus, an extremely rare condition. In type 2 there is a blind end to both the upper and the lower segments; this is also a rare type. Type 3 includes the anomalies with tracheoesophageal communications. In type 3a the upper segment communicates with the trachea and the lower segment has a blind proximal end; this is another rare type. In type 3b the upper segment is blind and the lower segment communicates with the trachea at or about the level of the bifurcation of the trachea. This is the common type of congenital anomaly of the esophagus. In type 3c both the upper and the lower segments communicate with the trachea (rare type).

There were 7 cases of simple atresia of the esophagus (type 2). The obstruction in cases of simple atresia may vary from a membranous diaphragm to complete agenesis. The lower segment of the esophagus in these 7 cases ended blindly just above the diaphragm and the upper segment appeared as the usual hypertrophic blind pouch. The common type of atresia of the esophagus with tracheoesophageal fistula (type 3) occurred in 93 cases. In 2 cases the upper and the lower segments of the esophagus communicated with the trachea (type 3).

Associated multiple anomalies are common and complicate the management, often contributing to

J. Thorac. Surg., 1952, 24: 246.

According to the authors, carcinomas of the hypopharynx, larynx, and upper esophagus more closely resemble the intraoral group of tumors than the gastrointestinal malignancies of glandular origin and they are more apt to remain localized longer than the latter group. Seventeen patients have been treated in a 3 year period.

The procedure popularized by Wookey was applied and in the majority of the patients treatment was extended to include a unilateral radical neck dissection. The operation is designed to provide a wide en bloc excision of all malignant tissue. Details of the technical steps are elaborated upon in the text.

Twelve of the 17 patients operated upon are alive from 1 to 36 months after the operation. Three patients have small fistulas; however, they experience no difficulty in swallowing. There were 2 operative deaths at 14 and 54 days which were caused by hemorrhage and empyema or respiratory distress. Three other patients died in 12 to 26 months because of recurrence or dissemination of the growth. Cervical lymph node metastases were present in 14 of the 17 patients.

On the basis of their experience, the authors recommend continued efforts at improving the management of malignancies in this area. As technical improvements continue and these interventions are applied to more favorable lesions, the end results can be expected to improve.

HIRAM T. LANGSTON, M.D.

Carcinoma of the Esophagus. A Consideration of Curative and Palliative Procedures. MARK M. RAVITCH, HENRY T. BAHNSON, and THOMAS N. P. JOHNS. *J. Thorac. Surg.*, 1952. 24: 256.

The authors review very objectively the available end results obtained by operative treatment of esophageal carcinoma and find them very disappointing. At the Johns Hopkins Hospital, Baltimore, Maryland, there have been no 5 year cures.

This is to be explained by several factors: (1) the lesion is rarely brought to light early because the symptoms are deceptive and insidious and (2) the more advanced lesions are disappointing because adequate en bloc resection is limited by the anatomical disposition of the organ in among vital structures, and because of the tendency toward metastases up and down, and wide dissemination even early.

agus three operative procedures are available for resectable tumors, each with its own advantages.

1. Resection and esophagogastrostomy, which establishes immediate and direct continuity of the alimentary canal.

2. Resection and antethoracic esophagoplasty which is suitable for patients able to tolerate a Torek procedure but who would not be likely to survive the additional strain of mobilization of the

ward the person to whom he or she is attached. Death of a dominant parent, marriage, or birth of a child often exacerbates the illness because the quasisecurity built on immature emotional ties is threatened. White has observed that although the basic immature personality of the severely malnourished patient with ulcerative colitis is unchanged by colectomy, surgical intervention, however, brings about the disappearance of the superadded depression, negativism, and petulance that often accompany the colonic disease process. White believes that every psychosomatic illness may be visualized as a vicious circle with environmental occurrences acting upon the personality to produce tension, the tension reacting upon the susceptible organ to cause or aggravate the disease, and the symptoms evoked intensifying the environmental difficulties. Surgical relief, followed by disappearance of depression and of the gross outward manifestations of immaturity appears to break the circle.

Lysozyme. This subject has been studied recently by many workers. The present status is well summed up in a recent editorial (107). Lysozyme is not believed to be a causative agent in ulcerative colitis, but rather serves as an index of the degree of activity of the ulcerative process.

Cancer and ulcerative colitis. This subject has been discussed under the Pathology of Cancer and Adenomas.

Treatment. Corticotropin (ACTH). Gray and his associates (147) have observed dramatic reactions in the acute phase of ulcerative colitis induced by corticotropin (ACTH). The remission is characterized by a significant decrease in the diarrhea and blood in the stools, improvement in the appearance of the mucous membrane as observed endoscopically, relief of tenesmus and abdominal pain, fall in the temperature, sedimentation rate, and fecal lysozyme titer, and an increase in weight and appetite accompanied by a sense of well being. The colonic mucosa does not, however, revert to normal nor does ACTH influence colitis of long duration that is accompanied by extensive fibrosis, cicatrization, strictures, and anorectal fistulas. The remission brought about by

patients under controlled conditions. The clinical response during the administration of ACTH was considered good in 27, moderate in 7, slight in 2, and valueless in 4 patients. Large quantities administered for from 6 to 8 weeks were more effective than short periods of therapy. The degree of improvement paralleled that obtained with other forms of therapy, but ACTH produced prompt and occasional dramatic remission unparalleled by other methods of treatment. Corticotropin does not cure ulcerative colitis nor does it eliminate the factors responsible for recurrence; the basic personality structure of the patient remains unchanged. The possibility of perforation of the ulcerated gut or at other sites of ulceration (peptic) should be kept in mind. (Also see 349a).

The effect of cortisone in ulcerative colitis was studied by Redish (294), who noted no evidence of beneficial effects on the ulcerative lesions of the colon. Kirsner (197) also obtained disappointing results with cortisone, but others (*J. Am. M. Ass.*, 1952, 150: 1587) disagree, pointing to the need of prolonged administration of large doses of cortisone.

The effect of banthine was investigated by Plummer and his associates (274) who observed this substance to be of value in the control of abdominal pain but without any influence upon the diarrhea or the disease process as seen endoscopically.

Thiouracil and propylthiouracil have been proposed again recently, having first been suggested in 1946 (229a). These drugs are believed to exert their effects on the parasympathetic innervation of the colon, thus influencing a beneficial effect after prolonged use in patients with reversible clinical and anatomic manifestations of chronic ulcerative colitis (162).

Surgical. The indications for surgical therapy are particularly well discussed by Lahey (203).

Section of parasympathetic nerves. As already stated elsewhere in the text this operative approach is in the process of evaluation by Hinton (318) and Scott (319).

Vagotomy. Consult Grace's studies (144) elsewhere in the text. Eddy (104), however, believes

muscular walls, and increased intracolonic pressure have been incriminated (258). Experimentally, colonic diverticulosis in aging rats has been produced by the lack of a suitable kind and amount of roughage (66). Bulk formers such as hemicellulose of psyllium seed husks prevented the formation of diverticula. Diverticula usually occur at points of least resistance where the blood vessels pierce, and are usually acquired. In some cases the diverticula are of congenital origin but they develop only in the presence of factors that make for the production of an acquired diverticulum (Beer). A diverticular wall consists of mucosa and peritoneum (serosa) and is devoid of muscles. Usually, the diverticulum projects beyond the serosal surface. Occasionally, however, an intramural dissecting type is encountered (77) in which the herniation burrows its way into the wall of the bowel and dissects between the intestinal layers, or a diverticulum may invert into the lumen of the gut, resembling a polyp (324).

Diverticula may occur in all segments of the colon including the cecum, but usually a portion of about 10 cm. of gut at the end of the descending colon and beginning of the sigmoid colon is involved by the diverticular process (111).

The presence of diverticula is thought of only after a pathologic process sets in. The onset and early cause of diverticulitis may resemble "left-sided" acute appendicitis. The various symptoms and signs produced by diverticulitis depend on the degree and extent of disease process as well as on the segment of the bowel that is involved. Backache, particularly pain in the lower part of the back, is encountered in many cases (175, 212), while bleeding from the rectum is both important and disconcerting. Rosser (304) believes that bleeding may be caused by diverticulitis, particularly the massive type which may be caused by erosion of a blood vessel. Intermittent but insignificant bleeding is rarely seen in diverticulitis; this type of bleeding suggests the presence of a concomitant neoplastic lesion such as a polyp or a cancer, and adds to the diagnostic confusion. Parenthetically, the diagnosis of diverticulitis de-

peritonitis, peritonitis without perforation, perforation high in the rectum with resulting ischiorectal or ischional abscesses, pericolitis with peridiverticulitis and thickening of the intestinal wall eventuating in partial or complete obstruction, and enterocolic or vesicocolic fistula or cancer (Arnheim). There is considerable uncertainty as to what extent diverticulitis is incidental or etiologically directly contributory to the not so rare occurrence of cancer in diverticulitis (254). In view of the fact that the great preponderance of patients with acute but uncomplicated diverticulitis respond to conservative measures (18), such as rest, a low-residue diet (meat, cooked eggs, rice, sago, tapioca and fruit juices), and terramycin, they should be tided over without surgical intervention whenever possible. Furthermore, it should be kept in mind that manifestations of obstruction in acute diverticulitis may at times be due to an associated ileus of the small bowel (112). Recurrent (acute or subacute) and chronic forms of diverticulitis are best treated by resection of the involved segment of the gut (254); whenever the presence of cancer is suspected a radical resection is mandatory.

Colonic resection is best avoided in the presence of active inflammation (258). Obstruction should best be treated by the construction of a transverse colostomy on the right side followed by resection of the diverticular process with immediate open end-to-end anastomosis within a period of 2 to 6 months, followed by closure of the colostomy stoma. Fistulas to adjacent organs or to the exterior via the abdominal wall are best treated by the construction of a preliminary transverse colostomy to divert the fecal stream and to permit the inflammatory process to subside, followed by resection of the involved segment of the colon and closure of the opening in the adjacent viscus, such as the bladder, and in turn followed by closure of the colostomy (78, 230, 232).

For acute perforation, Swinton (311) employs simple closure of the perforation with a proximal diversional colostomy. An exteriorization procedure and simultaneous excision of the infected